

Case 3034

***Waagenoconcha* Chao, 1927 and *Gruntoconcha* Angiolini, 1995
(Brachiopoda): proposed conservation**

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Abstract. The purpose of this application is to conserve the names of the Permian productide brachiopod genus *Waagenoconcha* Chao, 1927 and of its subgenus *Gruntoconcha* Angiolini, 1995. These nominal taxa are considered to include *Productus abichi* Waagen, 1884; the original designation of this as the type species of *Septoproductus* Frech, 1911 formally causes *Septoproductus* to be a senior synonym of *Waagenoconcha* and *Gruntoconcha*. However, the description of *Septoproductus* (based on Chinese material) as having the unusual feature of a strong ventral median septum would exclude *P. abichi* (from Pakistan) and indicates that this unused name is a junior synonym of *Tschernyschewia* Stoyanov, 1910. The suppression of *Septoproductus* is proposed.

Keywords. Nomenclature; taxonomy; Brachiopoda; *Gruntoconcha*; *Septoproductus*; *Tschernyschewia*; *Waagenoconcha*; Permian.

1. Frech (1911, p. 132) established *Septoproductus* as a subgenus of *Productus* Sowerby, 1814. Frech based *Septoproductus* on Permian material from Lo-ping, south China, stressing the presence of a strong ventral median septum in specimens from both Lo-ping and the high Permian of Dzulfia (Armenia). He went on to say that he had never been able to find a ventral median septum in comparable specimens from the Salt Range (Pakistan), and that the latter should be distinguished from the Chinese material; despite this, he designated *Productus abichi* Waagen, 1884 (p. 697), which was described from the Salt Range, as the type species of *Septoproductus*! This strange selection of the type species is the more peculiar in that Frech commented (p. 133) that the name *P. serialis* Waagen, 1884 (p. 700) should be used for the Salt Range specimen, rather than *P. abichi*, although Waagen had remarked 'it is with much doubt that I introduce this species [*P. serialis*] ... the shells are on the whole very similar to *Prod. abichi*'.

2. *Productus abichi* was described in detail and illustrated (pl. 74, figs. 1-7) by Waagen (1884); he wrote that 'the interior characters of this species are well known to me', yet he neither mentioned nor illustrated any sign of a ventral internal median septum. Grant (1966) redescribed and illustrated *P. abichi* but also did not report such a septum.

3. *P. abichi* is well known, and has been placed by various authors in *Waagenoconcha* Chao, 1927 (p. 85, type species by original designation *P. humboldti* d'Orbigny, 1842 (p. 54; from the Lower Permian of Bolivia). Muir-Wood & Cooper

(1960, pl. 89) used *P. abichi* as part of their illustrations of *Waagenoconcha*, on which they based a subfamily, and Grant (1966) based his discussion of *Waagenoconcha* on this species.

4. Frech (1911, footnote on p. 132) commented that there was a possible synonymy between his subgenus *Septoproductus* and *Tschernyschewia* Stoyanov, 1910 (p. 853, type species by original designation *T. typica*, sp. nov.), and this synonymy (based on the description of *Septoproductus*, rather than the type species *P. abichi*) was accepted by Muir-Wood (1965, p. 461) in the *Treatise on Invertebrate Paleontology*. Species of *Tschernyschewia* are highly septate in the ventral valve, much as described by Frech for *Septoproductus*.

5. Angiolini (1995, p. 206) established *Gruntoconcha* as a subgenus of *Waagenoconcha*, with the new species *W. (Gruntoconcha) macrotuberculata* (p. 206, fig. 16.6) from the Karakoram Range designated as the type species; she included *W. abichi* (Waagen, 1884) in the subgenus.

6. From the above it is seen that from its description *Septoproductus* Frech, 1911 is a junior synonym of *Tschernyschewia* Stoyanov, 1910, but that the original designation of *Productus abichi* as the type species formally causes it to be a senior subjective synonym of *Waagenoconcha* Chao, 1927 and of *Waagenoconcha (Gruntoconcha)* Angiolini, 1995. The name *Septoproductus* has not been used, and no species has ever been allocated to the genus (other than *P. abichi* in the original publication). It is desirable to retain the current understanding and use of *Waagenoconcha* and *Gruntoconcha*, and the placing of *P. abichi* therein, and this course is proposed in the forthcoming relevant volume of the *Treatise on Invertebrate Paleontology*.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the name *Septoproductus* Frech, 1911 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Gruntoconcha* Angiolini, 1995 (gender: feminine), type species by original designation *Waagenoconcha (Gruntoconcha) macrotuberculata* Angiolini, 1995;
 - (b) *Waagenoconcha* Chao, 1927 (gender: feminine), type species by original designation *Productus humboldti* d'Orbigny, 1842;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *macrotuberculata* Angiolini, 1995, as published in the binomen *Waagenoconcha (Gruntoconcha) macrotuberculata* (specific name of the type species of *Gruntoconcha* Angiolini, 1995);
 - (b) *humboldti* d'Orbigny, 1842, as published in the binomen *Productus humboldti* (specific name of the type species of *Waagenoconcha* Chao, 1927);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Septoproductus* Frech, 1911, as suppressed in (1) above.

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